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10/645,852	08/22/2003	Yoshinori Kataoka	031048	8140

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EXAMINER	
MUHAMMED, ABDUKADER S	
ART UNIT	PAPER NUMBER
2635	

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
3 MONTHS	12/18/2006	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

Office Action Summary	Application No.	Applicant(s)	
	10/645,852	KATAOKA ET AL.	
	Examiner	Art Unit	
	Abdukader Muhammed	2635	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *22 August 2003*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-21* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-21* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☒ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☒ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date *21 October 2004*.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Priority

1. Receipt is acknowledged of papers submitted under 35 U.S.C. 119(a)-(d), which papers have been placed of record in the file.

Drawings

2. The drawings are objected to as failing to depict every element of the claim. Correcting the deficiencies of claim 10, which will be discussed later in ***Claim Rejections - 35 USC § 112*** section, can lift this objection.

Abstract

3. The abstract of the disclosure is objected to because of the following informalities:

In line 3 the word "that" is repeated.

In line 9 "the **jot** table unit (310)" should be "the **jog** table unit (310)" to be consistent.

Correction is required. See MPEP § 608.01(b).

Specification

4. The disclosure is objected to because of the following informalities:

Page 1, line 18, "the record **playerto** play back the music" should be "the record **player to** play back the music" to be consistent.

Page 4, line 14, "a playback **apparatusaccording** to" should be "a playback **apparatus according** to" to be consistent.

Page 5, lines 14-29 and page 6, lines 1-7 the whole paragraph is repetition of the Brief Description of the Drawings section (it is redundant).

Page 23, line 4, "**performedto** insure reliable detection of the depressing" should be "**performed to** insure reliable detection of the depressing" to be consistent.

Page 26, line 19, "Since the ribs 325A and **325** are shaped" should be "Since the ribs 325A and **325B** are shaped" to be consistent.

Page 27, line 20, "The present invention has been **describedaccording** to the preferred embodiment" should be "The present invention has been **described according** to the preferred embodiment" to be consistent.

Appropriate correction is required.

Claim Objections

5. Claims 1, 2, 8, and 18 are objected to because of the following informalities:

In claim 1, line 6 "biases **the** at least one part of the operation unit" should be "biases at least one part of the operation unit".

In claim 2, line 1 "The switch **apparatus**" should be "The switch **device**" to be consistent with claim 1 preamble.

In claim 8, line 3 "which **oppose** at least **the switch**" should be "which **opposes** at least **the membrane switch**" to be consistent.

In claim 18, line 3 "a record player exerts **which** depressed" should be "a record player exerts **when** depressed".

Appropriate correction is required.

Claim Rejections - 35 USC § 112

6. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

7. Claims 1-21 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 1 recites the limitation "support section" in line 11. It is unclear whether this is intended to be the same as or different from "a support section" recited in line 5. To advance the prosecution the examiner interprets the limitation "support section" in line 11 as "**the** support section".

Claim 10 does not have antecedent basis in the specification. According to the specification the rotation-detecting section (470) does not have a plurality of rollers which rotate around axes. It rather has a second gear (472) that is in mesh with the first gear (323) of the jog table unit (310) [see page 9, lines 14-16 and page 21, lines 13-18 and also figure 10 in the instant application]. To advance prosecution the examiner interprets the limitation "said **rotation-detecting section** having plurality of rollers" in line 2 as "said **support section** having plurality of rollers".

Claim 13 recites the limitations "the top plate" in lines 2, 3, and 4 and "the projection" in line 2. There is insufficient antecedent basis for these limitations in the claim. To advance prosecution the examiner interprets the limitation "**the** top plate" in line 2 as "**a** top plate". This will give antecedent basis to "the top plate" in the rest of the claim and also in claim 14.

Claim 14 recites the limitation "the projection" in line 1. There is insufficient antecedent basis for this limitation in the claim.

Any claim not specifically addressed, above, is being rejected as incorporating the deficiencies of a claim upon which it depends.

Claim Rejections - 35 USC § 102

8. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

9. Claims 1-4, 6, 7, and 12 are rejected under 35 U.S.C. 102(e) as being anticipated by Tobimatsu et al. (US 6,608,965 B1).

Regarding Claim 1, Tobimatsu et al. teach a switch device comprising: a base part (chassis 90; see column 11, lines 12-18); an operation unit (a jog/shuttle dial 36; see column 11, lines 6-10) which is to be depressed; a support section (a dial holder 92; see column 11, lines 12-18) which is provided on the base part, supports a circumferential edge of the operation unit and biases at least one part of the operation unit away from the base part, said one part of the operation unit lying near the circumferential edge and able to move toward and from the base part when the operation unit is depressed and released (see column 12, lines 19-22 and figure 21); and a motion-detecting section (a lowering detection means 137; see column 13, lines 10-15) which is provided on at least one of the base part and support section, is positioned near the circumferential edge of the operation unit and which detects the circumferential edge of the

operation unit being moved toward the base part when the operation unit is depressed. (see figure 21).

Regarding Claim 2, as applied to claim 1 above and Tobimatsu et al. further teach that the support section has a plurality of spring members (compression coil springs 108, 112) which are provided at the circumferential edge of the operation unit, which undergo elastic deformation when the operation unit is depressed and which restore shape to bias at least one part of the operation unit away from the base part (see column 12, lines 19-22).

Regarding Claim 3, as applied to claim 1 above and Tobimatsu et al. further teach that the support section has a cushion member (compression coil springs 108, 112) which is provided at the circumferential edge of the operation unit and which undergoes elastic deformation when at least one part of the circumferential edge of the operation unit moves toward the base part as the operation unit is depressed (see column 12, lines 19-22 and figure 21).

Regarding Claim 4, as applied to claim 1 above and Tobimatsu et al. further teach that the support section comprises an operation member (a reset rotor 89; see column 11, lines 45-49) which is provided at the base part, which moves toward and from the base part when the operation unit is depressed, which has a shape corresponding to the circumferential edge of the operation unit and supports the circumferential edge thereof, and a biasing section (coil springs 108, 112) which biases the operation member away from the base part, thereby to bias the operation unit away from the base part (see figure 20 and 21).

Regarding Claim 6, as applied to claim 4 above and Tobimatsu et al. further teach that the biasing section has a plurality of spring members (compression coil springs 108, 112) which

undergo elastic deformation when the circumferential edge of the operation unit is depressed and which restore shape to bias the operation member away from the base part (see column 12, lines 19-22).

Regarding Claim 7, as applied to claim 4 above and Tobimatsu et al. further teach that the biasing section has a cushion member (coil springs 108, 112), which undergoes elastic deformation when the operation unit moves the operation member toward the base part (see column 12, lines 19-22 and figure 21).

Regarding Claim 12, as applied to claim 1 above and Tobimatsu et al. further teach that the operation unit comprises a top plate (jog/shuttle dial 36; see figure 21) which is to be depressed and a projection (an outer peripheral flange 88d; see column 11, lines 50-55) which protrudes outwardly from the top plate in a circumferential direction the top plate is depressed and which is supported by the support section.

Claim Rejections - 35 USC § 103

10. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

11. Claims 10, 13, and 15-17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Tobimatsu et al. (US 6,608,965 B1) as applied to claim 4, above, further in view of Nojima et al. (US 6,864,879 B2).

Regarding Claim 10, Tobimatsu et al. teach the limitations of claim 4 for the reasons discussed above. Tobimatsu et al. also teach a support section which comprises a rotation detection section (a rotation position detection means 131; see column 12, lines 66-67). Tobimatsu et al. differ from the claimed invention in that there are no rollers to support the operation unit.

Nojima et al. teach a plurality of steel balls (16) that correspond to the rollers claimed and support a retainer ring on which the jog dial is supported (see column 5, lines 23-36).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to have used rollers/steel balls in the system of Tobimatsu et al. since Nojima et al. teach that by using steel balls the retainer, hence jog dial, is able to rotate smoothly (see column 5, lines 60-65).

Regarding Claim 13, as applied to claim 10 above, Tobimatsu et al. also teach the switch device wherein the operation unit comprises the top plate (the top portion of the jog dial 87) which is to be depressed and the projection (step 88c which is supported by the friction plate) which protrudes outwardly from the top plate in the circumferential direction the top plate is depressed, which has a larger diameter than the top plate and which is supported on the rollers of the support section (see figure 21 and column 11, lines 51-55 and 65-66).

Regarding Claim 15, as applied to claim 10 above, Tobimatsu et al. also teach the switch device wherein the support section comprises an annular cover (retainer ring 104) in which the operation unit is inserted to move in axial direction and not to move in circumferential direction, which is supported on the base part and which is configured to rotate (see column 12, lines 2-5).

Regarding Claim 16, as applied to claim 15 above, Tobimatsu et al. also teach the switch device wherein the operation unit has an engagement section (arms 92c), and the annular cover has a fastening section (three ribs which protrude out of the retainer ring 104, see figure 20) which is configured to position and hold the engagement section in a circumferential direction of the operation unit (see column 12, lines 2-5 and figure 20).

Regarding Claim 17, as applied to claim 10 and claim15 above, Nojima et al. also teach the switch device wherein the base part comprises a plurality of rollers (steel balls 16) which support the annular cover, allowing the same to rotate (see column 5, lines 60-65).

12. Claims 19 and 21 are rejected under 35 U.S.C. 103(a) as being unpatentable over Tobimatsu et al. (US 6,608,965 B1) as applied to claim 1, above, further in view of Liu (US 6,618,329 B2).

Regarding Claim 19 and 21, Tobimatsu et al. teach the limitations of claim 1 for the reasons discussed above. Tobimatsu et al. differ from the claimed invention as it does not show a data processing apparatus and a playback apparatus controlled by the switch device.

Liu on the other hand teaches a data-processing apparatus comprising a data-reading section (laser pickup 14) which reads data from a recording medium; a data-processing section (microprocessor 2) which processes the data, read from the recording medium; and a process control section (turntable control element) which changes modes in which the data-processing section processes the data, when the motion-detecting section of the switch device detects that the operation unit is moving toward the base part (claim 19) (see abstract and figure 1). Liu also teach a playback apparatus comprising a playback section (digital audio signal processor 5) that

reproduces data processed by the data-processing apparatus (claim 21) (see abstract and figure 1).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to have used the data processing apparatus and playback apparatus in the system of Tobimatsu et al. since Liu teaches that using such elements is useful as user can rotate the control element with the hands to decide on the items of the music and the paying speed and direction so as to play the music with changed tone and speed (see abstract).

13. Claim 20 is rejected under 35 U.S.C. 103(a) as being unpatentable over Tobimatsu et al. (US 6,608,965 B1) as applied to claim 1, above, further in view of Nojima et al. (US 6,864,879 B2) and Liu (US 6,618,329 B2).

Regarding Claim 20, Tobimatsu et al. teach the limitations of claim 1 for the reasons discussed above. The combination of Tobimatsu et al. and Nojima et al. teach the limitation of claim 10 as discussed above. The combination of Tobimatsu et al. and Nojima et al. differ from the claimed invention as it does not show a data processing apparatus and a playback apparatus controlled by the switch device.

Liu on the other hand teaches a data-processing apparatus comprising a data-reading section (laser pickup 14) which reads data from a recording medium; a data-processing section (microprocessor 2) which processes the data, read from the recording medium; and a process control section (turntable control element) which changes modes in which the data-processing section processes the data, when the motion-detecting section of the switch device detects that the operation unit is moving toward the base part (see abstract and figure 1).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to have used the data processing apparatus in the system of the combination of Tobimatsu et al. and Nojima et al. since Liu teaches that using such elements is useful as user can rotate the control element with the hands to decide on the items of the music and the paying speed and direction so as to play the music with changed tone and speed (see abstract).

Allowable subject Matter

13. Claims 5, 8, 9, 11, 14 and 18 would be allowable if rewritten to overcome the rejection(s) under 35 U.S.C. 112, 2nd paragraph, set forth in this Office action and to include all of the limitations of the base claim and any intervening claims.

14. The following is a statement of reasons for the indication of allowable subject matter:

Regarding Claim 5, a combination of Tobimatsu et al. (US 6,608,965 B1), MacKay et al. (US 5,351,161), Huang (US 7,072,249 B2), Kikuchi (US 6,898,165 b2), and Hori (US 6,771,582 B1) disclose a digital audio signal payback apparatus with scratch effect control device; the turntable control system including motion detection means. *But fails to show* that the motion detection means using specifically a membrane switch to detect the motion of the dial that is manually controlled by a user.

Claims 8 and 9 are dependent on claim 5 that has patentable subject matter.

Regarding Claim 11, the references given above single or in combination *fail to show* that the rotation-detecting sensor is configured to detect the rotation of a second gear/teeth which is set in mesh with the first gear/teeth of the turntable control system.

Regarding Claim 14, the references given above single or in combination *fail to show* that the flange like projection to have a bulging downward section.

Regarding Claim 18, the references given above single or in combination *fail to show* that the biasing force is substantially equal to a load which the turntable of a record player exerts when depressed.

Conclusion

15. The prior art made of record in PTO-892 Form and not relied upon is considered pertinent to applicant's disclosure.

MacKay et al. (US 5,351,161) teach a switch assembly that has a pair of nested coaxial rotary knobs each attached by shafts to sensors that determine the radial position of a reference point on each knob. The knobs rotate with respect to each other and are constructed to allow rotation of the knobs with one hand (see abstract and figure 7).

Hori (US 6,771,582 B1) teach a control dial unit having a jog dial and a shuttle dial which is concentrically mounted outside the jog dial. The control dial unit is used for controlling reproduction operation of an optical disk apparatus (see background of the invention section and figure 1).

Huang (US 7,072,249 B2) teaches a scratch effect control device for a digital audio signal playback apparatus, the control unit controls output of digital audio data recorded in a data-recording medium (see abstract and figures 4 and 5).

Kikuchi (US 6,898,165 b2) teaches a turntable of a scratch operating unit to provide a reproducer that can enhance detection accuracy with respect to a rotational motion according to a scratch operation and properly change a reproducing speed of a recording medium (see background of the invention section and figures 1 and 2).

16. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Abdukader Muhammed whose telephone number is (571) 270-1226. The examiner can normally be reached on Monday-Thursday 8:00-5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Marvin Lateef can be reached on (571) 272-5026. Customer Service can be reached at (571) 272-2600. The fax number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

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07 December 2006

DANIEL SWERDLOW
PRIMARY EXAMINER